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AUTHOR Buchholz, Ester; Dick, Anita
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ABSTRACT

This paper explores the potential psychoeducational value of a perceptual-motor screening program designed to evaluate kindergarten and first grade children in a public elementary school. The possibility of providing such a service within the framework of a university training program is examined, and the value to the university and the community is indicated. The paper describes the organization and implementation of this early screening program by the professor, teaching fellow, and students of a graduate course in psychodiagnostics. The actual subtests, testing procedure and methods for reporting results are outlined. Three individual cases are discussed in depth, each pointing to the potential clinical and educational importance of such a brief screening procedure. The cases described reflect the ways in which perceptual, emotional or organic problems may be expressed in the child's test behavior and performance. The relationship of such problems to behavior in the classroom and at home is noted, and ways of discussing test findings and recommendations with parents and teachers are presented. (Author/JMB)

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Ester Buchholz
Anita Diek

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The Organization of an Elementary School Screening Program Through the Use of University Resources

Ester Buchholz
Department of Educational Psychology
New York University

Anita Dick
School Psychology Program
New York University

This project was begun in an effort to provide early screening for children in elementary school. The dual purpose of the assessment program was to facilitate the development of educational priorities and goals for the individual child, and to share with parents obtained information that might be relevant to the child's behavior within the family and school setting. A key aspect of the project was the use of university resources and personnel in the implementation of the screening program. It was our intention to explore the possible services that such a link between institutions might make available to families in the community.

The feasibility and importance of early screening have gained increasing recognition in recent years. Learning and personality development appear to interact in what Biber (Sapir & Nitzburg, 1973) terms a "circular process," so that a basic challenge for primary education involves the creation of learning experiences that enhance this growth process. As Silver and Hagin (1972) note: "....for the child with learning problems, improvement in cognitive function provides a strong point around which the developing personality may rally." (p. 646).

With regard to timing, Bower (1974) states: "....screening locations are best situated at points of transition between one institution and the next." (p. 10). The child's entrance into kindergarten or first grade may represent such a crucial junction. Since the deleterious effects of perceptual and integrative difficulties appear to be cumulative, early assessment and intervention are of critical importance for a substantial number of children. Moreover, on the basis of extensive

research, and tests currently in use, Silver et al (Note 1), report findings which suggest that "children vulnerable to educational failure can be detected in the first grade by tests which are reliable and replicable."

The importance of perceptual functioning in early learning and cognition is well recognized by current theorists. Describing cognitive development, Piaget (1963) refers to the "sensorimotor basis" of intelligence. He postulates a developmental sequence in which perceptual and sensorimotor experiences lay the foundation for later symbolic processes, thus assigning to perception a crucial role in the general intellectual development of the child. Similarly, Wepman (1964) has formulated a 3 stage hierarchical model of language and thought in which conceptual functioning is seen as built upon a layer of prior perceptual experience. In this view, children with perceptual-motor, visual or auditory perceptual deficits which go uncorrected are unable to establish an optimal foundation for later learning of a more abstract nature.

Although identification of children with perceptual difficulties was the aim, we did anticipate our findings in some instances pointing to possible sensory defects, neurological damage and emotional problems in children whose deficits had previously gone unrecognized. The screening battery alone was not intended to provide us with clearcut diagnoses. Recognizing the complexity of cognitive behavior, Zeitlin (Note 2), defines kindergarten screening as a "short procedure which will identify those children who need further diagnostic procedures related to the objectives being screened for." The purpose and procedures of this screening program conform to that definition. We focus here on the

qualitative analysis of our procedures and findings with a view toward locating the possible problems and uses of such a program. The quantitative results will be presented at a later date (Dick & Buchholz, Note 3).

DESCRIPTION OF BATTERY

The battery consists of 10 subtests and takes approximately 45 minutes to administer. The subtests include in this order: a brief articulation test, a test of body image, test of left-right directionality, the Monroe Auditory Discrimination test, the Sentences subtest of the WPPSI (Items A-8), the Bender-Gestalt, the Digit Span subtest from the WISC-R, Rote-Sequencing questions (Search)[1], Frostig Position in Space (page 1), and the Draw-a-Person test (Goodenough, 1926; Silver & Hagin, Note 4). Tests were individually administered and scored according to the instructions usually assigned to these measures.

Various screening batteries have been published. We chose to combine our measures due to their ease of administration, the short length of time required for testing and the specific perceptual functions they measure. In particular we were interested in evaluating children in the areas of visual-motor coordination, visual and auditory perception, sequencing, orientation and body image. We are, as stated, focusing our attention here on the clinical material testing provided rather than the normative data, though both were analyzed.

Also, with regard to the question of validity parents and teachers served to support our results. In every case where we found perceptual

deficit there was a history of either difficulty in learning in the class or specific problems in reaching various developmental milestones.

METHODOLOGY

Procedure. Nineteen students enrolled in a final practicum of a graduate program in school psychology served as testers for this project. Each tested from 3-5 children. Only those kindergarten and first graders whose parents had signed consent forms were tested. This was approximately 80% of the kindergarten children and 50% of the first grade children. Some first graders had been screened the year before as kindergarten children. All testing was done on the school premises during the usual school day. No special room was set aside for this, but all testing was done outside of the classroom in a closed room with just examiner and examinee present.

Instructions. "You and I are going to spend some time together. We're going to be doing lots of different things. Let's go find a place." Of the sample perhaps only 2 or 3 children refused to be tested and they were not tested. Children tested seemed to really enjoy the experience. When examiners went back to the room to test another child, children previously tested frequently asked for another turn.

Scoring. The scoring was done by the students, but completely reviewed by the supervisors to insure accuracy. The clinical assessment which was

a qualitative review of the data actually preceded the analysis of the scoring and was done totally by the supervisors. Behavioral observations, however, were recorded by the student testers, and were used as part of the clinical assessment.

RESULTS

Scores were used in many different ways. Test results were tabulated and separate percentiles for the kindergarten and first grade were established. Normative data were used to give feedback to parents and teachers.

In addition to the normative data, the clinical analysis of each record allowed us to obtain very specific information on each child. We found that screening in a way that produces only normative data is not sufficient to identify the unique complex of problems in each child, nor to differentiate those developmental deviations that are limited in their effect from those that significantly retard a child's growth. The following three cases show the different use of normative and clinical data for children with varied problems.

A was referred for testing by the classroom teacher because of moodiness and crying spells, frequent refusal to join in class activities and below grade-level reading skills. Initial observations confirmed the tendency toward social withdrawal and negative, attention-seeking behavior in the classroom.

Screening results indicated a well differentiated body image suggesting high intellectual potential (Goodenough IQ was 152), good articulation, and age adequate visual-motor coordination, memory for sentences and digit recall. Performance on the auditory discrimination

task was just at our first grade cut-off point, while knowledge of right and left, rote sequencing and spatial orientation were below our first grade norms. The figure drawings, accompanying stories and comments during testing suggested oedipal conflict and anger over sex role issues, particularly within the family constellation.

Since screening results reflected lags in perceptual orientation and sequencing as well as considerable emotional conflict, a parent conference was arranged at the school. Test findings were discussed with A's parents and a developmental history was obtained. A's mother reported that the child had been "difficult" to handle from infancy on, and that the pregnancy itself had been unusually uncomfortable. The description of A's behavior at home confirmed the need for a more complete diagnostic evaluation. Both parents reported experiencing difficulty in relating to and disciplining A, in contrast to their older child whom they found cooperative and competent. They were bewildered by A's willful behavior and seeming inability to fit comfortably into the family pattern.

With parental consent, a full psychological battery was given shortly after the parent conference. Despite indications of above average intellectual potential, A obtained a full scale IQ of 102 on the WISC-R, although the profile of scores was markedly uneven with scaled scores ranging from somewhat below average (Information and Arithmetic) to superior (Vocabulary) on verbal tests. The range of scores on performance tests was even broader, from the superior level on visual sequencing and coding tasks to significantly poor performance on two spatial reasoning tasks requiring differentiation and integration (Block

Design and Mazes). A tendency toward impulsivity was noted in A's response style.

Because earlier testing suggested possible learning disabilities, subtests of the Detroit Tests of Learning Aptitude (1967) were administered in order to further identify specific areas of weakness. A obtained age-equivalent or above scores on items measuring visual-motor coordination, social adjustment, vocabulary, visual sequencing and ability to follow oral directions. Scores on tasks measuring auditory attention span, auditory discrimination and sequencing, and general orientation to the environment were well below average.

A displayed expressive language difficulty when tasks simultaneoulsy involved complex receptive and expressive language functions. A problem in specific word retrieval was indicated, with substitutions such as "old" for "new," "back" for "front," and "cold" for "hot" occurring in A's speech. Orientation problems included confusions in laterality, directionality and temporal sequencing. A did not know left from right, the distinction between seasons, months and days of the week, or positional concepts referring to ordered series of events or objects.

Projective testing revealed heightened, although developmentally appropriate, sexual concerns accompanied by strong feelings of ambivalence towards both parents. Conflict over aggressive impulses, intense feelings of frustration and a tendency toward oppositional behavior were also noted. Rorschach responses reflected superior intellectual potential, rich inner resources, and highly structured ego functioning.

A second parent conference was held in order to inform the parents of our test findings. A's developmental lags in perceptual and language

functions were discussed within the context of the child's high cognitive potential. The relationship between these disabilities and A's emotional difficulties was emphasized, techniques for reducing family conflict were suggested, and a specific recommendation for perceptual intervention was made.

Learning about their child's perceptual and language problems helped A's parents to mobilize themselves with regard to home management as well as remedial arrangements. This resulted in reduced feelings of frustration and helplessness. As a consequence, negative attitudes towards themselves and their child were likely to abate.

B was one of the youngest kindergarten children screened. Test behavior was characterized by the examiner as highly distractible. During the auditory discrimination test, there were frequent lapses in attention: at times, B appeared not to be listening at all.

The Bender performance was below age level, showing perseveration, rotations, poor angulation and difficulty with the integration of figures. B's general approach to this visual-motor task was described as very disorganized.

Other than the Bender-Gestalt, the only test scores which fell below the kindergarten norms were those for Articulation and WPPSI Sentences. B had difficulty with pronunciation and was unable to correctly reproduce three of the five test words. Errors included sequencing as well as accuracy of sounds. Weakness was also shown in the recall of sentences. B obtained a significantly low score on this test, substituting words and changing the order of words in even the simplest of sentences.

Scores on body image, knowledge of left and right, recall of digits, spatial orientation and rote sequencing were at or above our kindergarten norms. The figure drawing, although reflecting some immaturity in integration of body image, was highly differentiated, yielding a Goodenough IQ score of 120.

Since developmental patterns are extremely irregular in young children and B had scored below grade level on only 3 subtests, this child was placed in the "Watch" category and put on the list for re-testing in the fall. The observed problems in attention, visual-motor integration and auditory sequencing could be re-evaluated at that time with an eye toward possible intervention.

Since B's mother had indicated a desire to learn the results, even if they fell within normal limits, a parent conference was arranged. The mother's behavior during the initial phone call suggested high anxiety and a tendency to becomse easily disorganized. She had forgotten having expressed interest in the test results, and assumed that the phone call meant she was about to receive upsetting information about her child. When contacted, she wanted to meet with the psychologist immediately so that she could hear about her child at once.

Mother and child arrived at the school for the conference. It was readily apparent that B was a highly active, well-coordinated and impulsive child who seemed to be in almost constant motion. B's mother was a rather volatile woman whose behavior reflected considerable fear, anger and confusion. Once arrangements were made for B, the school psychologist and B's mother found an empty room in which to meet. As the conference proceeded, B's mother related important information about

the difficult pregnancy and birth conditions associated with the child. The mother's life had been endangered throughout the pregnancy because of a toxic condition, and B was born prematurely at 6 months, requiring a two month stay in the hospital following birth.

It became clear that B's mother felt intense anxiety about the child's condition and had a specific fear of possible mental retardation. Since this is a single parent home, there had been no opportunity for B's mother to share her fears with an equally concerned adult. On the basis of screening results, the psychologist was able to reassure B's mother of the absence of retardation. With the added information of the child's birth history, the psychologist now had to consider the possibility of organic damage. It was still considered wise to allow for further observation and re-evaluation in the fall. Moreover, given the mother's anxiety, it was important to be more than mildly suspicious of organic involvement before engaging this family in a long process of neurological testing.

The remaining conference time was spent discussing the most appropriate classroom structure and home activities for B, in view of the child's special needs. In an incredibly poor match of child and classroom atmosphere, B had been placed in the most unstructured kindergarten class of the school. (This reinforced our belief that screening should occur before class placement is determined.) B's mother was assured that specific recommendations for class placement would be made for the fall, and that a perceptual re-evaluation would take place at that time.

In this instance, signs of possible deficit in some areas of

perceptual functioning combined with parental anxiety to create a parent-psychologist conference in which important information was exchanged, diffuse parental anxiety was reduced, and the foundations for further diagnosis and specific intervention were established.

The results of C's screening reflected the child's high level of ability. Bender-Gestalt and figure drawings were meticulously executed. There were no problems in any area of perceptual or cognitive development or in concentration. Hearing and articulation were excellent and cooperation was adequate. The figure drawing, nevertheless, was striking enough to suggest further follow-up. C drew a very small person on the side of the page with darkened-in hair and completely shaded-in trousers and shirt and described it as "Frankenstein without shoes--he's scared." Although an elementary school child choosing to draw a monster rather than a person is not unusual, the combination of the small, scared and shoeless monster with totally darkened in areas suggested more than the usual conflict over hostile urges and the possibility of resulting anxiety that was not being adequately handled. These hypotheses were checked out and confirmed through classroom observation, and later with parent interviews. In this case, the teacher had also lodged a complaint about "moody" behavior and her difficulty in making satisfactory contact with the child. Since C's classwork was generally good, the teacher did not feel she had anything tangible to discuss with the family. The screener observed C's classroom behavior and noted the tendency to withdraw, general sullenness and a lack of confidence--besides occasional seemingly unprovoked, angry outbursts. We arranged a parent conference. The father was glad to have a chance to talk to the school psychologist

and teacher. He felt there were special events in C's life that should be known, but he did not know how to bring this information tc the school. C's mother left the family two years ago and is not anxious to make any contact with C. The father is now married to a woman who has two of her own children. Last year C was uncommunicative--expressing neither joy, anger or sorrow. This year C's father describes C as angry a lot, but also talking to others in his family. The father punishes C for his angry, disrespectful outbursts. In this conference, school and parent exchanged views about C's experience and whether there might be ways to encourage expression of feeling without infringing on other's needs. Both teacher and father left the conference with improved confidence in how to relate to C. A follow-up report from the teacher reflected her new ease in having C in her class and C's added trust and respect for her and the group.

This case is included to illustrate the usefulness of the protocol in uncovering emotional as well as perceptual problems and also to demonstrate that highly private material does not have to add to children's or for that matter to parent's vulnerability to "outsiders," but rather can be used tactfully to make school life more comfortable for teacher and child and even improve home life. Lately there has been more than the usual amount of suspicion thrown on testing (Trotter, 1975). Our three cases are examples of the positive side of intervention through testing and for us serve as important reasons for careful evaluations.

DISCUSSION

Pre K and first grade screening, which is a relatively new part of school programs, has become a controversial subject. Two general

trends seem to be operating simultaneously in education and psychology. One trend is to know all one can about the child, his environment and their interaction in order to best aid education and development. The other trend is to protect and to preserve the child's inner integrity. Both trends have in common a desire to encourage the child's individuality; one through catering to his individual needs and the other through preventing his uniqueness from being squelched. There is obvious merit to both trends which is probably a reason why there has been no resolution to the issue. But also the fight reflects America's general conflict over whether education as taught in school educates or merely inhibits. The authors fully agree that terrible mistakes, abuses and commercialism occur under the guise of "testing," "screening," and "evaluating." Yet the suggestion that could be gleaned from Schrag and Divoky's (1975) article that we are finding out too much about our children and that the ultimate result of screening is segregating children into "special" classes that will label and stigmatize them for life does not seem to be borne out by our study. We found that, for the most part, schools and parents still know far too little about their children. We agree that "systematic early identification of children who are known to suffer developmental disability, or who have a high risk of doing so, is potentially the single most powerful means at hand for reducing the impact of exceptionality..." (Friedlander, 1975, p. 603). We suggest rather than being afraid to know, being more careful in how we obtain and use our knowledge. We would be incorrect if we give the impression that in our study, anxiety was never needlessly provoked. Some students in their zeal to impart new knowledge overlooked our supervisory statements

and gave parents very one-sided information. In one instance, slow perceptual development was stressed in such a way as to make the child sound severely handicapped when all that was required perceptually was a switch from a visual to an auditory approach to learning to read and perhaps eye-hand exercises. The parents were correct to be distressed and one of the senior people had to undo the statements made in the conference as well as to spend many extra hours counseling. In fairness to the student, some of the counseling was necessary because, to begin with, one parent was excessively suspicious and anxious (but, of course, anxiety is always a consideration when interviewing parents). This evaluation could be counted as a screening failure if seen only from one angle. Yet, the child benefited from the testing: a) Parents were put in touch with problems their child was having which they were denying. b) The child began to learn how to read. c) In knowing the parents were aware of difficulties the child relaxed sufficiently to begin making friends in the class. d) And, incidentally, once the results were clarified, the parents were pleased with the overall help screening provided. We are not advocates of ends justify means psychology; we in fact describe this case as a way of emphasizing a need for more careful assessments and discussions of results.

Another controversial issue relates to the possibility that children, if left alone, will compensate for their developmental deviations. It is thought by some that screening may intensify the problems by calling further attention to them. In contrast to the widely held belief that children with developmental lags often "outgrow" them, these authors suggest that many disabilities of this nature tend to persist, often in

an attenuated form, into adulthood. In a series of follow-up studies on children with specific reading disability, Silver & Hagin (1964) found that "in spite of maturation in some areas, specific reading disability is a long-term problem in the life of the individual..." (p. 101) As adults, these people continue to have difficulty in visual-motor functioning, particularly in regard to spatial orientation and figure-ground perception. Some body image difficulties also remain, with figure drawings suggesting displacement and tonus-postural problems.

Moreover, such learning deficiencies can have considerable impact on the social and emotional adjustment of the child. Rourke (1975) notes that children who exhibit learning disabilities "usually will develop some form of at least mild socio-emotional disturbance if their deficits in learning go unattended during the early school years." Excessive demands, repeated experiences of failure and negative self-evaluations often serve to increase the likelihood that the learning disabled child "will experience debilitating degrees of anxiety." (p. 912).

Thus although the child with developmental lags may learn to adopt strategies that enable him to deal with his temporal and spatial problems, the persistence of perceptual immaturities, broad variation in the individual ability to compensate for perceptual deficits, and the emotional significance of repeated failure point to the importance of early diagnosis and intervention.

The issue as we see it is not should we or should we not screen. One of our most striking findings was the number of "normal" children who turn up with problems in need of attention after careful screening. The problem for us is how can screening be accomplished both carefully

and with low expenditures. Compelling is that we provided this service to a school using one professor, one fellow and a graduate school psychology class of 19 students. Moreover, the service was an apprenticeship experience for the student. The psychology course was a diagnostic practicum which in part dealt with children with learning problems. For the most part, teachers, administrators, as well as the parents were pleased to have this special service. In all, the senior people spent about 30 hours of their time on this volunteer project. Since the project was part of a course it might be thought of as mutually beneficial to university and community with little cost. We were also able to provide more complete psychological testing using these same students where necessary. It is not unusual to use and train college students to work as both apprentices and professionals (Antor and Zide, 1975). However, the model of the university as an agency for the elementary school has never been formalized or extended in the way this project suggests. Bower (1974) suggests servicing the community with a total health facility through which children and parents could freely move. The university could be that center providing a base for health and educational services or a coordinating point for representatives sent to schools. If, for example, bilingual classes use the Spanish department--one graduate class might offer significant service to a whole school. The department could service many schools. Musicians in training could teach theory to children in several neighborhood schools as well as have captive audiences for practicing. University resources, though occasionally tapped, seem untouched in any formal sense and although not limitless, sufficient to fill in gaps, especially in the city schools where services are lacking.

Our work indicated that there is a potential for a broad spectrum of university based services to elementary schools. At present, however, university programs in the health professions seem most geared to organizing and tackling the problems as they are already involved in community services and have recently developed techniques for dealing with some of these issues. Kenney & Clemmens (1975) feel the most effective work for pediatricians, psychologists and educators would come from collaborating in the school and have set out a plan for facilitating and integrating this service in the school with a minimal number of problems. Some of their ideas could be incorporated within the university model.

We anticipate, in addition to the general professional responsibility of ensuring the accuracy of the work and of providing adequate supervision, the need for central coordination of such projects, especially as services are expanded. Again Kenney & Clemmens offer some suggestions for coordination. Most important is being sure that one person or segment of the university is established as a coordinating center. Setting up a full time coordinating unit might be the one large necessary expense for an otherwise low-budget operation. Further elaboration of how a university-elementary school network would function would have to follow the establishment of such a center. Here, we are saying that the relationship between future educators and practitioners intending to work with children be begun early and that it should be a regular part of programming both at the university and elementary school level. With regard to the specific question of kindergarten and first grade screening

or other types of testing, we feel that if a careful program of testing supervised by the specialists--those who instruct on how the tests should be used--were carried out where needed, the trends of knowing more about children and protecting children's individual rights would no longer be mutually exclusive.

A drawback in our work was that through screening we amassed much data which is still unused because the schools are not yet prepared to directly implement programs which correct specific deficits, or to foster optimal development of children's special talents. It is at that point that the university could step in most successfully through their other departments be they with special learning disability tutors, curriculum advisors, or artists.

Considerable attention has been given over the last several years to the child who might be labelled learning disabled, but it is our contention that the most effective education for all children occurs when the individual child's learning pattern is the starting point for his educational program.

References

Antor, S. B., and Zide, E. D. Master's level professional training in clinical psychology and community mental health. Professional Psychology, 1974, 5 (2), 115-121.

Baker, H. J., and Leland, B. Detroit Tests of Learning Aptitude. Indianapolis, Indiana: Bobbs-Merrill Company, 1967.

Bower, E. M. The primacy of primary prevention: The metaphor of screening. School Psychology Digest, 1974, 3 (4), 4-12.

Friedlander, B. Z. Screening: A state of the art survey. In Friedlander, Sterritt and Kirk (Eds.), Exceptional infant. New York: Brunner Mazel, 1975.

Goodenough, F. Measurement of intelligence by drawings. Yonkers-on-Hudson, New York: World Book Co., 1926.

Kenney, T. J., and Clemmens, R. L. Behavioral pediatrics and child development: A clinical handbook. Baltimore: Williams and Wilkins, 1975.

Piaget, J. The origins of intelligence. New York: Norton, 1963.

Rourke, B. P. Brain-behavior relationships in children with learning disabilities: A research program. American Psychologist, 1975, 30 (9), 911-919.

Sapir, S., and Nitzburg, A. C. Children with learning problems. New York: Brunner Mazel, 1973.

Schrag, P., and Divoky, D. The myth of the hyperactive child. New York: Pantheon Books Inc., 1975.

Silver, A. A., and Hagin, R. A. Specific reading disability: Follow-up studies. American Journal of Orthopsychiatry, 1964, 34 (1), 95-102.

Silver, A. A., and Hagin, R. A. Profile of a first grade: A basis for preventive psychiatry. Journal of American Academy of Child Psychiatry, 1972, 11 (4), 645-674.

Trotter, Sharland. Massive screening set for nation's poorest children, American Psychological Association Monitor, Vol. 6 (9, 10), 1975.

Wepman, J. M. The perceptual basis for learning. In H. A. Robinson (Ed.), Meeting individual differences in reading. Chicago: University of Chicago Press, 1964.

Reference Notes

1. Silver, A. A., Hagin, R. A., Kreeger, H., and Scully, E. Beyond consultation: A program for preventive psychiatry. Paper presented at meeting of the Orthopsychiatric Association, June 1, 1973.
2. Zeitlin, S. Kindergarten screening-why-what-how-when. Paper presented at Kindergarten Screening Workshop, State University College, New Paltz, New York, March 27, 1974.
3. Dick, A., and Buchholz, E. Perceptual screening for learning disabilities: Underlying dimensions. Unpublished work in process.
4. Silver, A. A., and Hagin, R. A. Effects of perceptual stimulation on perception, on reading ability, and on the establishment of cerebral dominance for language. Final Report to Carnagie Corporation, 1972.

Footnotes

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